IXLdp Ultra-Low Differential Pressure Transmitter

FEATURES
- Current and voltage output signals available
- Custom ranges available
- FM approval for hazardous locations (OPT.)
- 5:1 turndown option
- Si-Glass™ technology enables precise measurement and control of very low pressures

TYPICAL USES
- HVAC
- Fume Hood Control
- Lab/Clean/Hospital Room Pressurization
- Laminar Flow
- Furnace/Stack Draft
- Leak Detection
- Pollution/Filtering Monitoring
- Medical Equipment
- Fan Tracking
- Filter Monitoring
- Velocity Measurements
- Building Energy Management/Comfort Control Systems

PERFORMANCE SPECIFICATIONS
Reference Temperature: 70°F ±2°F (21°C ±1°C)
Accuracy Class: ±0.25% of span, ±0.5% of span (Terminal Point Method: includes non-linearity, hysteresis, non-repeatability, zero offset and span setting errors)
Stability: ±0.25% of span/year at reference conditions
Media Compatibility: Clean, dry and non-corrosive gas
Standard Response Time: 250ms

ENVIRONMENTAL SPECIFICATIONS
Operating Temperature: 0°F to 160°F (–18°C to 71°C)
Storage Temperature: –4°F to 104°F (–20°C to 40°C)
Thermal Coefficients: Zero and Span:
- 0.25% Accuracy: ±0.01% of span/°F
- 0.5% Accuracy: ±0.02% of span/°F
Vibration Sweep: <0.2% span/g temporary effect 10-130Hz
Humidity Effects: No performance effect at 0-95% R.H. noncondensing

FUNCTIONAL SPECIFICATIONS
Mounting Position Effect:
- ≥1 IWC: ±0.1% of span/g
- 0.25 IWC to 0.5 IWC: ±0.5% of span/g
- 0.1 IWC: ±0.8% of span/g
Calibrated horizontally standard unless otherwise specified. Mounting Position Effect easily corrected with zero potentiometer
Max. Static (Line) Pressure: 100 psi
Proof: 20 psid
Burst: 50 psid

ELECTRICAL SPECIFICATIONS
Circuit Protection: Reverse Wiring Protected
Potentiometers: Internal
Zero: ±10% of span
Span: ±10% of span
Supply Current: 2.6 mA typical for Voltage output
Warm-up Time: <1 second
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**Output Signal:**
- 4-20 mA (2-wire) 12-36 Vdc
- 0-5 Vdc (3-wire) 12-36 Vdc
- 1-5 Vdc (3-wire) 12-36 Vdc
- 1-6 Vdc (3-wire) 12-36 Vdc
- ±2.5 Vdc (3-wire) 12-36 Vdc
- ±5 Vdc (3-wire) 12-36 Vdc

Output signal is independent of power supply changes: 12-36 Vdc range without effect on output signal.

**PHYSICAL SPECIFICATIONS**

- **Electrical Connection:** ½” female electrical conduit connections isolated from the electronics. Separate access cover for terminal connections.
- **Environmental Rating:** NEMA 4X
- **Process Connection:** ¼ NPT Female

**HAZARDOUS SPECIFICATIONS**

- **FM (OPT.) Approval:** Intrinsically Safe: Class I, II, III Div. 1 Groups A, B, C, D, E, F and G when properly installed with an approved FM intrinsically safe barrier.
- Non-incendive: Class I, II and III Div. 2, Groups A, B, C, D, E, F and G (4-20 mA output only)

Consult Factory for: Other pressure range, temperature compensation, packaging variations or response times.

**LOAD LIMITATIONS 4-20 mA OUTPUT ONLY**

Featuring a highly reliable variable capacitance sensor using the patented Ashcroft® Si-Glass™ sensor. This ultra-thin single crystal diaphragm provides inherent sensor repeatability and stability.

**Sensor Cross Section**

The silicon diaphragm sensor has no glues or other organics to contribute to drift or mechanical degradation over time.
# Data Sheet

## IXLdp Ultra-Low Differential Pressure Transmitter

<table>
<thead>
<tr>
<th>ORDERING CODE</th>
<th>Example:</th>
</tr>
</thead>
<tbody>
<tr>
<td>IX3 - IXLdp Series, ±0.25% of span, ±0.01% of span T.C. /°F</td>
<td>IX3</td>
</tr>
<tr>
<td>IX5 - IXLdp Series, ±0.5% of span, ±0.02% of span T.C. /°F</td>
<td>IX5</td>
</tr>
</tbody>
</table>

### Pressure Connection
- **F02** - ¼ NPT Female

### Output Signal
- 05 - 0-5 Vdc
- 15 - 1-5 Vdc
- 16 - 1-6 Vdc
- 25 - ±2.5 Vdc
- 42 - 4-20 mA
- 50 - ±5.0 Vdc

### Electrical Termination
- **ST** - Screw Terminal

### Pressure Range
#### Unidirectional Ranges (differential)
- P1IW - 0.10 IWC
- P25IW - 0.25 IWC
- P5IW - 0.50 IWC
- 1IW - 1.00 IWC
- 2IW - 2.00 IWC
- 3IW - 3.00 IWC
- 5IW - 5.00 IWC
- 10IW - 10.00 IWC
- 15IW - 15.00 IWC
- 20IW - 20.00 IWC
- 25IW - 25.00 IWC
- 50IW - 50.00 IWC
- 100IW - 100.00 IWC
- 150IW - 150.00 IWC
- 200IW - 200.00 IWC

#### Bi-directional Ranges
- P05IWL - ±0.05 IWC
- P1IWL - ±0.10 IWC
- P2IWL - ±0.20 IWC
- P25IWL - ±0.25 IWC
- P5IWL - ±0.50 IWC
- 1IWL - ±1.00 IWC
- 2IWL - ±2.00 IWC
- 2P5IWL - ±2.50 IWC
- 3IWL - ±3.00 IWC
- 5IWL - ±5.00 IWC
- 10IWL - ±10.00 IWC
- 15IWL - ±15.00 IWC
- 20IWL - ±20.00 IWC
- 25IWL - ±25.00 IWC
- 50IWL - ±50.00 IWC
- 100IWL - ±100.00 IWC

### Option (if indicating an option(s) must include an “X”)
- 1D - Variable dampening, 0-30sec
- 41 - 5:1 Turndown
- CL - Custom pressure range calibration
- FM - FM Approval (with 4-20 mA output only. FM cannot be offered with options X1D or XX2)
- NH - SS tag
- NN - Paper tag
- X1 - Fast response time
- X2 - Slow response time

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All specifications are subject to change without notice.
All sales subject to standard terms and conditions.
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**DIMENSIONS**
For reference only, consult Ashcroft for specific dimensional drawings

**Front View**

```
+-------------------+-------------------+
|                   |                   |
|                   |                   |
| 2.7               | 3.1               |
|                   |                   |
| 4.3               |                   |
|                   |                   |
| *-3/8 NPT Female pressure connection |
```

**Side View**

```
+-------------------+-------------------+
|                   |                   |
|                   |                   |
| 2.5               |                   |
|                   |                   |
| 2.9               |                   |
|                   |                   |
| 1/2" Electrical conduit |
```

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